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## IN THE CLAIMS

Please cancel claims 3-5, 11-12, 17, and 19, and amend claims 1, 6, 8, 9, 13-16, 18, and 23 as follows:

(Currently Amended) Apparatus for providing demand television comprising:

 a broadcast encoder for encoding a <u>real-time</u> video frame sequence to form a
 broadcast bitstream;

a storage encoder for encoding the <u>real-time</u> video frame sequence to form a <u>plurality of storage bitstreams</u> <u>bitstream</u>, <u>wherein said storage encoder comprises</u>:

a first encoder for producing a play bitstream that contains information that, when decoded, produces a forward play video frame sequence;

a frame subsampler;

a buffer, for storing subsampled frames of the real-time video frame sequence;

a second encoder for producing a fast forward bitstream that contains information that, when decoded, produces a fast-forward video frame sequence;

<u>a third encoder for producing a fast-reverse bitstream that contains</u> <u>information that, when decoded, produces a fast-reverse video frame sequence;</u> and

<u>a controller that selects subsampled frames from the buffer and couples</u> <u>selected frames to the second and third encoders</u>;

a transmission system for transmitting the broadcast bitstream to subscriber equipment;

a storage device for storing the <u>plurality of</u> storage <u>bitstreams</u> <del>bitstreams</del>, wherein the storage device stores the <u>plurality of</u> storage <u>bitstreams contemporaneously to</u> <del>bitstream at the same time that</del> the transmission system <u>transmitting</u> <del>transmits</del> the broadcast bitstream; and

wherein said storage bitstream contains a plurality of bitstream types including at least a play bitstream and a fast forward bitstream, and said fast forward bitstream contains an indicator that delimits the <u>an</u> end of available data such that a transition from said fast forward bitstream to at least one of said broadcast bitstream and said play bitstream is appropriate.





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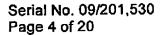
- 2. (Original) The apparatus of claim 1 wherein said broadcast encoder is a high data rate encoder.
- Canceled.
- 4. Canceled.
- Canceled.
- 6. (Currently Amended) The apparatus of claim [[5]] 1 wherein said first encoder is an MPEG encoder that encodes N frames of the video sequence.
- 7. (Original) The apparatus of claim 6 wherein said second and third encoders are MPEG encoders that encodes N subsampled frames.
- 8. (Currently Amended) The apparatus of claim [[5]] 1 wherein the controller multiplexes selection of the frames from the buffer to apply a plurality of subsampled frames to said second encoder to form said fast forward bitstream and then apply a plurality of subsampled frames to said third encoder to form said fast reverse bitstream.
- 9. (Currently Amended) A method for providing demand television comprising the steps of:

encoding, in real-time, a broadcast video frame sequence to form a broadcast bitstream, while at the same time contemporaneously encoding the broadcast video frame sequence to form a <u>plurality of storage bitstream bitstreams</u>, wherein said <u>plurality of storage bitstreams are contemporaneously formed by the steps of:</u>

encoding said frames to form a play bitstream;
subsampling said broadcast video frames;
buffering said subsampled frames;
recalling said buffered frames in a forward time sequence order;
encoding said recalled buffered frames to form said fast forward bitstre

encoding said recalled buffered frames to form said fast forward bitstream; recalling said buffered frames in a reverse time sequence order; and encoding said recalled buffered frames to form a fast reverse bitstream;

broadcasting the broadcast bitstream to subscriber equipment[[;]], while contemporaneously storing the plurality of storage bitstream bitstreams within a storage device; and



upon a subscriber selecting to view information previously broadcast by the broadcast bitstream, transmitting to the subscriber the storage bitstream;

wherein said storage bitstream contains a plurality of bitstream types including at least a play bitstream and a fast forward bitstream, and said fast forward bitstream contains an indicator that delimits the end of available data such that a transition from said fast forward bitstream to at least one of said broadcast bitstream and said play bitstream is appropriate.

- 10. (Original) The method of claim 9 wherein said broadcast bitstream is a high data rate bitstream.
- 11. Canceled.
- 12. Canceled.
- 13. (Currently Amended) The method of claim [[12]] 9 wherein said play bitstream when decoded forms a standard play frame sequence.
- 14. (Currently Amended) The method of claim [[12]] 9 wherein said fast forward bitstream, when decoded, forms a fast forward frame sequence.
- 15. (Currently Amended) The method of claim [[12]] 9 wherein said fast reverse bitstream, when decoded, forms a fast reverse frame sequence.
- 16. (Currently Amended) The method of claim 9 wherein said storage bitstream contains a plurality of bitstream types and said storage bitstream transmitting step further comprises the steps of:

recalling from said storage device a particular bitstream in response to a request for a particular bitstream type from a subscriber terminal;

addressing the requested bitstream to said requesting subscriber; transmitting said requested bitstream to said subscriber equipment.

17. Canceled.



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- 18. (Currently Amended) The method of claim [[17]] 9 wherein the method further comprises a step of switching from transmitting a fast forward bitstream to transmitting said broadcast bitstream upon reaching the indicator.
- 19. Canceled.

Claims 20-22 (Canceled).

23. (Currently Amended) A method of providing demand television comprising the steps of:

encoding, in real-time via a first encoder, a broadcast video frame sequence to form a broadcast bitstream, while at the same timecontemporaneously encoding, via a second encoder, the broadcast video frame sequence to form a storage bitstream;

transmitting said broadcast bitstream to a plurality of subscriber equipment for decoding;

storing said broadcast bitstream as a storage bitstream while said broadcast bitstream is being transmitted;

upon said subscriber equipment requesting said storage bitstream to enable review of information contained in said broadcast bitstream, transmitting said storage bitstream to said subscriber having requested the storage bitstream;

wherein said storage bitstream comprises at least a play bitstream and a fast forward bitstream, and upon said fast forward bitstream being exhausted of data, automatically switching from said storage bitstream to said broadcast bitstream.

24. (Previously Presented) A method of providing demand television comprising the steps of:

encoding, in real-time via a first encoder, a broadcast video frame sequence to form a broadcast bitstream, while contemporaneously encoding, via a second encoder, the broadcast video frame sequence to form a storage bitstream;

transmitting said broadcast bitstream to a plurality of subscriber equipment for decoding;

storing said broadcast bitstream as a storage bitstream while said broadcast bitstream is being transmitted;

upon said subscriber equipment requesting said storage bitstream to enable review of information contained in said broadcast bitstream, transmitting said storage bitstream to said subscriber having requested the storage bitstream; and

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upon said subscriber equipment requesting said broadcast bitstream, switching from said storage bitstream to said broadcast bitstream.

the

- 25. (Previously Presented) The method of claim 19, wherein said storage bitstream comprises at least a play bitstream and a fast forward bitstream, and upon said fast forward bitstream being exhausted of data, automatically switching from said storage bitstream to said broadcast bitstream.
- 26. (Previously Presented) The method of claim 23 wherein said storage bitstream comprises a fast reverse bitstream.
- 27. (Previously Presented) The method of claim 23, wherein upon said subscriber equipment requesting said broadcast bitstream, switching from said storage bitstream to said broadcast bitstream.